

EPA's Recommendation to Designate Additional Small Municipal Separate Storm Sewer Systems within the Puget Sound Area

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Introduction

In accordance with EPA's stormwater regulations at 40 CRF 123.35, Ecology has adopted six petition criteria that it considers when evaluating the potential inclusion of additional areas under the Phase II NPDES permit:

- Does the municipal separate storm sewer discharge stormwater to impaired or sensitive waters? (Factor 1)
- Is the municipal separate storm sewer a significant contributor of pollutants to waters of the United States? (Factor 2)
- Does the municipal separate storm sewer serve a substantial population or area? (Factor 3)
- Is the municipal separate storm sewer contiguously located to an already regulated municipal storm sewer? (Factor 4)
- Is the municipal separate storm sewer physically interconnected to another, already regulated municipal storm sewer? (Factor 5)
- Are the water quality impacts of the municipal separate storm sewer already being addressed under other regulations or programs? (Factor 6)

Ecology's petition criteria were used to re-evaluate candidate MS4s in areas outside of current permit coverage in Puget Sound. Based on this information, EPA believes the following UGAs (grouped by county) meet the designation criteria and require permit coverage:

- Whatcom County
City of Blaine and Unincorporated County UGAs adjacent to Blaine, including
Unincorporated County UGAs of Birch Bay and Cherry Point
City of Lynden and Unincorporated County UGAs adjacent to Lynden
- Snohomish County
City of Stanwood
City of Sultan
- Island County
Unincorporated County UGAs adjacent to Oak Harbor
Unincorporated County UGA of Freeland
- Pierce County
City of Eatonville
- Thurston County
City of Yelm and Unincorporated County UGAs adjacent to Yelm
- Mason County
City of Shelton and Unincorporated County UGAs adjacent to Shelton
Unincorporated County UGA of Allyn
Unincorporated County UGA of Belfair

- Kitsap County
Unincorporated County UGA of Kingston
- Jefferson County
City of Port Townsend and Unincorporated County UGAs adjacent to Port Townsend
Unincorporated County UGA of Port Hadlock-Irondale
- Clallam County
City of Sequim and Unincorporated County UGAs adjacent to Sequim, including
Unincorporated County UGA of Carlsborg
Unincorporated County UGAs adjacent to Port Angeles

The specific justifications for NPDES permit coverage for each county UGA are summarized in Table 1 and discussed in detail below.

Justification for small MS4 Permit Coverage

A. Whatcom County

City of Blaine and Unincorporated County UGAs adjacent to Blaine

The city of Blaine is located at the junction of the United States-Canada border and Puget Sound. It is bordered to the west by Drayton Bay. Blaine is adjacent to the Birch Bay unincorporated County UGA, which is contiguous with the Cherry Point unincorporated County UGA to the south.

Factor 1

- Collectively, Blaine and adjacent Blaine UGAs discharge stormwater runoff directly to Puget Sound. Within Blaine, Cain and Unnamed Creeks are listed as water-quality impaired on the Clean Water Act's 303(d) list for dissolved oxygen (DO) and fecal coliform. Both creeks discharge to Drayton Harbor, which is also impaired for fecal coliform. Stormwater runoff is a known contributor of fecal coliform and a source of DO impairment. It is likely that stormwater runoff from the city of Blaine and its unincorporated UGAs contributes to these impairments.
- The nearshore marine habitat has been designated as critical habitat for Chinook populations by the National Oceanographic and Atmospheric Administration (NOAA). Stormwater from the city of Blaine and adjacent UGA areas discharges to these sensitive waters.
- Stormwater from the city of Blaine and adjacent UGA areas discharges to nearshore areas near commercial and recreational shellfish beds, including those located at Semiahmoo, Semiahmoo Marina, and Semiahmoo State Park, which are all permanently closed due to human health safety risks. These water bodies are regularly used for swimming and fishing by the public and are important aquatic resources for the community.

Factor 3

- Current Blaine population estimates from Washington's Office of Financial Management (OFM) indicate a population of 4,790 with a density of 841 persons per square mile. The population in Blaine increased 27.1% from April 1, 2000 to April 1, 2010, which is greater than the state population growth of 14.2% during the same time period. Because population information does not include data for the

unincorporated county UGAs surrounding Blaine, it is likely that current population projections underestimate the true population within the entire Blaine UGA.

Unincorporated County UGAs of Birch Bay and Cherry Point

The unincorporated county UGAs of Birch Bay and Cherry Point are located to the south of Blaine along the shores of Puget Sound. Population data is not available for Birch Bay and Cherry Point UGAs.

Factor 1

- The nearshore habitat has been designated critical habitat for Chinook populations by NOAA. Stormwater from Birch Bay discharges to these waters.
- Stormwater from the Birch Bay UGA discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at Birch Bay County Park and Birch Bay State Park. These water bodies are regularly used for swimming and fishing by the public.

City of Lynden and Unincorporated County UGAs adjacent to Lynden

The city of Lynden is located in the north central portion of Whatcom County. It is surrounded by adjacent unincorporated county UGAs but is not interconnected with, or adjacent to, any other municipality.

Factors 1 & 2

- Lynden discharges stormwater directly to numerous sensitive tributaries on the 303(d) impaired water bodies list, notably Fishtrap Creek and Kamm Creek and water quality impairments include DO, pH, and temperature. Oxygen - demanding organic compounds are “typical constituents of concern” in stormwater discharge, and it is likely that stormwater discharges contribute to reduced DO levels in Lynden’s tributaries. Stormwater runoff also has elevated temperatures and altered pH which negatively impact aquatic life and a water body’s natural trophic structure (see Brungs and Jones, 1977; Coutant, 1977; Eaton et al., 1995; Ehlinger et al., 2004). Thus, it is likely that water quality impairments for DO, pH, and temperature are a result of significant levels of constituents of concern in stormwater discharges from the city of Lynden.
- NOAA has designated critical habitat Chinook salmon which runs through Lynden’s UGA, including Pepin Creek, Fishtrap Creek, Stickney Slough, and the Nooksack River.

Factor 3

- Lynden has a population of 11,850 with a density of 2,352 people per square mile and has experienced an increase in population growth of 31.4% in the last ten years. Because population data are not available for the unincorporated UGAs surrounding Lynden, population estimates are conservative. Nonetheless, residential growth has occurred at twice the rate of the state growth during the same time period and the MS4 serves a population greater than 10,000.

B. Snohomish County

City of Stanwood

The city of Stanwood is located due east of the overland connection to Camano Island in northwestern Snohomish County.

Factor 1

- Stanwood discharges stormwater directly to numerous sensitive and impaired water bodies on the 303(d) list, notably Church Creek and the Stillaguamish River. Water quality impairments include DO, temperature, and fecal coliform, which are known constituents of concern frequently found in stormwater runoff.
- The Stillaguamish River has been designated by NOAA as critical habitat for Chinook salmon.

Factor 2

- The impervious coverage ranges from 26-42% in the city. Due to these high levels of existing impervious coverage, it is highly likely that the city of Stanwood contributes stormwater pollutant loads that are considered to cause or exacerbate the deterioration of receiving water quality or instream habitat conditions.

Factor 3

- Stanwood has a population of 5,705 with a density of 2,008 people per square mile and has experienced an increase in population growth of 45.4% in the last ten years, which is three times the rate of Washington state's average population growth during the same time period.

Factors 4 & 5

- The city of Stanwood's MS4 is physically interconnected with and adjacent to the MS4 in unincorporated Shohomish County UGA area, which covered under Snohomish County's Phase I MS4 permit.

City of Sultan

The city of Sultan is located along the Skykomish River in central Snohomish County.

Factor 1

- NOAA have designated Chinook critical habitat for several rivers running through and adjacent to the city of Sultan and surrounding UGA boundaries: including Wagleys Creek, Sultan River, Wallace River, and the Skykomish River.

Factor 3

- Sultan has a population of 4,570 with a density of 1,441 people per square mile and has experienced an increase in population growth of 36.7% in the last ten years, which is twice the average Washington state population growth rate during the same time period.

Factor 4 & 5

- The city's MS4 is physically interconnected with and adjacent to unincorporated county UGA area which currently covered under Snohomish County's Phase I MS4 permit.

C. Island County

Unincorporated County UGAs adjacent to Oak Harbor

The unincorporated county UGAs of Oak Harbor are located along the eastern shore of northern Whidbey Island.

Factor 1

- The unincorporated UGAs surrounding Oak Harbor discharge stormwater directly to Crescent Harbor Creek, a water quality-impaired tributary on the 303(d) list impaired for DO and fecal coliform. Oxygen-demanding organic compounds (which contribute low DO issues) and fecal coliform are known constituents of concern frequently found in stormwater runoff and based on this, it is likely that stormwater discharge from the unincorporated UGAs surrounding Oak Harbor contribute significant amounts of pollutants to this sensitive creek.
- Stormwater from Oak Harbor and surrounding unincorporated county UGAs also discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at Winas Crescent Harbor, Winas-Maylor Point West, Oak Harbor City Park, and Oak Harbor Beach Park.
- The Oak Harbor shoreline habitat has also been designated by NOAA as critical for spawning, rearing, and migration of Chinook salmon.
- The waters off Oak Harbor and surrounding unincorporated county UGAs are regularly used for swimming and fishing by the public and should be considered important aquatic resources for the community.

Factors 3, 4, and 5

- The city of Oak Harbor has a population of 23,420 with a density of 2,463 people per square mile and has experienced an increase in population growth of 18.3% in the last ten years. The city has a population greater than 10,000, a density greater than 1,000, and a growth rate that exceeds the state average, all of which triggered its current inclusion in the MS4 permit program. The MS4 system for the unincorporated UGAs are physically interconnected with Oak Harbor's MS4, which is currently under a Phase II MS4. Population data are not available for the unincorporated county UGAs surrounding Oak Harbor. Taken together, the unincorporated UGAs surrounding Oak Harbor and the city serve a substantial population that continues to expand, making it likely that the UGAs will receive a large portion of the expected new development.

Unincorporated County UGA of Freeland

The unincorporated county UGA of Freeland is located on southern Whidbey Island along the southern shores of Holmes Harbor. It is not interconnected with, or adjacent to, any other municipality. Population data is not available for the Freeland UGA.

Factor 1

- Freeland stormwater discharges directly to Unnamed Ditch, a water quality-impaired tributary draining to Holmes Harbor that is on the 303(d) list for fecal coliform. Fecal coliform is a known constituent of concern frequently found in stormwater runoff and thus, it is likely that stormwater discharge from the

unincorporated UGA of Freeland contributes significant levels of pollutants to this sensitive tributary.

- Stormwater from the Freeland UGA also discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at North Freeland Shellfish Area and Freeland County Park (which is permanently closed due to human health concerns).
- Freeland shoreline habitat has also been designated by NOAA as critical for the spawning, rearing, and migration of Chinook salmon populations.
- Coastal waters off Freeland are regularly used for swimming and fishing by the public.

D. Pierce County

City of Eatonville

The city of Eatonville is located in southern Pierce County north of the Nisqually River and due south of Ohop Lake.

Factors 1 and 2

- The city of Eatonville discharges stormwater directly to Ohop Creek and the Mashel River, which are on the 303(d) list for temperature and DO, respectively. Since stormwater runoff typically contributes to these impairments, it is likely that stormwater runoff from the city contributes to these impairments.
- Ohop Creek and the Mashel River have been designated by NOAA as critical habitat for the survival of Chinook salmon populations.

Factor 3

- Eatonville has a population of 2,405 with a density of 1,305 people per square mile and has experienced an increase in population growth of 19.5% in the last ten years, which is greater than the average Washington state population growth rate during the same time period.

Factors 4 and 5

- The city of Eatonville is physically interconnected with and adjacent to unincorporated county UGAs of Eatonville which currently receive coverage under Pierce County's Phase I MS4 permit.

E. Thurston County

City of Yelm and Unincorporated County UGAs adjacent to Yelm

The city of Yelm is located along the Nisqually River south of the Fort Lewis military base. It is surrounded by and adjacent to unincorporated county UGAs that share interconnected stormwater conveyance systems.

Factor 1

- Direct discharges of stormwater occur to the Nisqually River, which has received NOAA designation as critical habitat for Chinook populations.

Factor 3

- The city of Yelm has a population of 5,900 with a density of 1,008 people per square mile and has experienced an astounding increase in population growth of 79.4% in the last ten years, nearly six times Washington state's average growth rate (no data are available for the unincorporated UGAs).

F. Mason County

City of Shelton and Unincorporated County UGAs adjacent to Shelton

The city of Shelton is located along the western shore of Oakland Harbor directly south of Hood Canal. It is surrounded by and adjacent to unincorporated county UGAs that share interconnected stormwater conveyance systems.

Factor 1

- Stormwater from the city of Shelton and the unincorporated county UGAs surrounding Shelton discharges directly to several water quality-impaired tributaries on the state 303(d) list, including Shelton Harbor, Oakland Bay, Mills Creek, Goldsborough Creek, Shelton Creek, and Johns Creek. Impairments include fecal coliform and temperature, both of which are known to be delivered or increased via stormwater input. Thus, it is likely that stormwater discharge from the city of Shelton and the surrounding unincorporated county UGAs contributes to these impairments.
- Stormwater from the city of Shelton and surrounding UGAs also discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at Miller Point Shellfish Area.
- The Shelton shoreline habitat has been officially designated by NOAA as critical for the survival of Chinook salmon populations.

Factor 3

- Shelton has a population of 8,975 with a density of 1,419 people per square mile and has experienced an increase in population growth of 6.3% in the last ten years (population of incorporated UGA not included).

Unincorporated County UGA of Belfair

The unincorporated county UGA of Belfair is located to the southwest of Bremerton along the shores of Hood Canal. Population data is not available for the Belfair UGA.

Factor 1

- Stormwater from the unincorporated county Belfair UGA discharges directly to two water quality-impaired tributaries on the 303(d) list, the Union River (North East Fork) and Great Bend/Lynch Cove; impairments include DO and fecal coliform. Oxygen-demanding organic compounds (which contribute to low DO issues) and fecal coliform are known constituents of concern frequently found in stormwater runoff and based on this, it is likely that stormwater discharge from the unincorporated UGA of Belfair contributes significant amounts of pollutants to these sensitive water bodies.
- Stormwater from Belfair also discharges to the Theler Shellfish Area.
- The Union River and Belfair's shoreline habitat are officially designated by NOAA as critical for the survival of Chum salmon populations.

Factors 4 and 5

- The Belfair unincorporated county UGA shares its eastern border with the Kitsap County and Bremerton UGAs, which are within the same basin and currently regulated MS4s. It is likely the Belfair MS4 has interconnected stormwater conveyances with these MS4s.

Unincorporated County UGA of Allyn

The unincorporated county UGA of Allyn is located on the western shores of North Bay in Mason County. It is not interconnected with, or adjacent to, any other municipality. Population data is not available for the Allyn UGA.

Factors 1 and 2

- Allyn stormwater discharges directly to two water quality-impaired water bodies on the 303(d) list, Case Inlet and Dana Passage; both are impaired due to high concentrations of fecal coliform. Stormwater runoff is a known contributor of fecal coliform to receiving waters within the Puget Sound watershed. Therefore, it is likely that stormwater runoff from the unincorporated county UGA of Allyn has detrimentally impacted these impaired water bodies by contributing significant levels of fecal coliform.
- Stormwater from Allyn also discharges to commercial and recreational shellfish beds in the North Bay region of Dana Passage (Sherwood Creek Shellfish Area), which increase the likelihood that stormwater contaminants will bioaccumulate within the shellfish tissue and render the shellfish unsafe for human consumption.
- Allyn's shoreline habitat is also officially designated by NOAA as critical habitat for Chum salmon populations.

G. Kitsap County

Unincorporated County UGA of Kingston

The unincorporated county UGA of Kingston is located in the northeastern portion of Kitsap County on the western shore of central Puget Sound. It is not interconnected with, or adjacent to, any other municipality. Population data is not available for the Kingston UGA.

Factors 1 and 2

- Stormwater from the UGA of Kingston discharges to Carpenter Creek, a 303(d) listed tributary impaired for DO, fecal coliform, and temperature. It is likely that water quality impairments for DO, fecal coliform, and temperature are a result of significant levels of constituents of concern in stormwater discharges from Kingston.
- Kingston's shoreline habitat is also officially designated by NOAA as critical habitat for Chinook populations.

H. Jefferson County

City of Port Townsend and Unincorporated County UGAs adjacent to Port Townsend

The city of Port Townsend is surrounded by Puget Sound on three sides at the northeastern prominence of Jefferson County. Port Townsend is adjacent to unincorporated county UGAs with interconnected stormwater conveyances.

Factor 1

- Stormwater runoff from the city of Port Townsend and the unincorporated UGAs adjacent to Port Townsend drains directly into Puget Sound, including areas near recreational shellfish beds at Point Wilson, North Beach County Park, Fort Worden State Park, and North Point Hudson. These shellfish areas are permanently closed because they are unsafe for human consumption.
- The nearshore area surrounding Port Townsend is critical habitat for both Chinook and Chum salmon (however, these areas are excluded from official NOAA designation for economic reasons).
- The waters off Port Townsend are regularly used for swimming and fishing by the public.

Factor 3

- Port Townsend has a population of 8,945 with a density of 1,484 people per square mile and has experienced an increase in population growth of 7.3% in the last ten years (population of unincorporated UGA not included).

Unincorporated County UGA of Port Hadlock-Irondale

The unincorporated county UGA of Port Hadlock-Irondale is located due south of Port Townsend at the southwestern shores of Port Townsend Bay. It is not interconnected with, or adjacent to, any other municipality. Population data is not available for the Port Hadlock-Irondale UGA.

Factor 1

- Stormwater discharges from the Port Hadlock-Irondale UGA flow directly to Chimacum Creek, a 303(d) listed tributary impaired for fecal coliform and temperature. Because elevated fecal coliform levels and temperature are known effects of stormwater runoff, it is likely that stormwater from this area contributes to these impairments.
- Stormwater also drains into Port Townsend Bay near recreational shellfish beds, including those at the Chimacum Creek Tidelands.
- The nearshore habitat off of Port Hadlock-Irondale has been designated by NOAA as critical habitat for the survival of both Chinook and Chum salmon species.

I. Clallam County

City of Sequim and Unincorporated County UGAs adjacent to Sequim, including Unincorporated County UGA of Carlsborg

The city of Sequim is located along the northeastern shoreline of Clallam County and is surrounded by unincorporated county UGAs with interconnected stormwater conveyances. Carlsborg is a smaller unincorporated county UGA due west of Sequim. The stormwater conveyances of Sequim and Carlsborg are not connected.

Factor 1

- Stormwater from the city of Sequim and adjacent unincorporated UGAs discharges directly to 303(d) listed sensitive waters, including Johnson Creek and Bell Creek (impaired for DO, fecal coliform, and bioassessment). Carlsborg stormwater discharges downstream to Mudd Creek and Bear Creek, which are impaired for fecal

coliform. Low diversity or absent macroinvertebrate populations (i.e., impaired bioassessment) is a stream characteristic caused by excessive stormwater. It is likely that stormwater runoff from the city of Sequim and the unincorporated county UGA of Carlsborg contribute to these impairments.

- Stormwater from the city of Sequim and adjacent unincorporated UGAs drains to recreational shellfish beds at the DNR-411A and Pitship Point sites.
- Sequim's nearshore area has received NOAA designation as critical for Chinook populations.

Factor 3

- Sequim has a population of 5,830 with a density of 939 people per square mile and has experienced an increase in population growth of 34.5% in the last ten years. Population data for Carlsborg is not available

Unincorporated County UGAs adjacent to Port Angeles

The unincorporated county UGAs of Port Angeles are located along the northern shoreline of Clallam County directly across the Straights of Georgia from Vancouver Island, British Columbia.

Factor 1

- The unincorporated county UGAs surrounding Port Angeles discharges stormwater directly to numerous waters on the 303(d) list, including Dry Creek, Ennis Creek, Lees Creek, and Port Angeles Harbor. Water quality impairments include DO, fecal coliform, and bioassessment, all of which are impacts that have been linked to stormwater discharge within Puget Sound. Thus, it is likely that stormwater runoff from this area contributes to these impairments.
- The nearshore habitat off of unincorporated county Port Angeles UGA is designated by NOAA as critical for the survival of Chinook salmon populations.

Factor 3

- Population data are not available for the unincorporated county UGAs surrounding Port Angeles. However, the city of Port Angeles has a population of 19,380 with a density of 1,858 people per square mile and has experienced an increase in population growth of 5.3% in the last ten years. The city has a population greater than 10,000 and a density greater than 1,000, which triggered inclusion in the MS4 permit program. Taken together, the unincorporated UGAs surrounding Port Angeles and the city serve a substantial population.

Factors 4 and 5

- They surround the city of Port Angeles which is currently under a Phase II MS4 permit, and the MS4 systems for the unincorporated UGAs are physically interconnected with Port Angeles's MS4. Because the unincorporated UGAs contribute stormwater discharge is connected to the already permitted city, it follows that the unincorporated county UGAs should receive permit coverage as well.

In addition, EPA believes that the following areas deserve consideration for permit coverage based on Ecology's designation criteria:

- Whatcom County
City of Everson and Unincorporated County UGAs adjacent to Everson
City of Nooksack and Unincorporated County UGAs adjacent to Nooksack
City of Sumas and Unincorporated County UGAs adjacent to Sumas
- Skagit County
City of La Conner and Unincorporated County UGAs adjacent to La Conner
- Island County
City of Coupeville
City of Langley and Unincorporated County UGAs adjacent to Langley
- Thurston County
City of Rainer and Unincorporated County UGAs adjacent to Rainer

J. Whatcom County

City of Everson and Unincorporated County UGAs adjacent to Everson, City of Nooksack and Unincorporated County UGAs adjacent to Nooksack

The cities of Everson and Nooksack are located in north central Whatcom County. Nooksack lies due east of Everson and the two municipalities have a shared border and interconnected stormwater conveyances. Both Everson and Nooksack are surrounded by unincorporated county UGAs with interconnected stormwater conveyances.

Factor 1

- Everson discharges stormwater to the Nooksack River, which is listed as water-quality impaired on the Clean Water Act's 303(d) list for DO. Nooksack does not discharge stormwater to any currently listed 303(d) sensitive waters.
- The Nooksack River has received NOAA designation as critical habitat for Chinook populations.

Factor 3

- The cities of Everson and Nooksack have small populations (2,305 and 1,230, respectively) and similar densities (1,910 and 1,791 people per square mile, respectively). While Everson has experienced growth similar to the statewide average in the last ten years (13.3%), Nooksack has undergone substantial growth (42.5%). Because population data are not available for the unincorporated UGAs surrounding Everson/Nooksack, population estimates are conservative. Nonetheless, residential growth in the city of Nooksack has occurred at nearly three times the rate of the state population growth during the same time period.

City of Sumas and Unincorporated County UGAs adjacent to Sumas

The city of Sumas is located in the middle of Whatcom County along the United States-Canada border. Sumas and the surrounding unincorporated county UGAs share no borders or stormwater conveyances with any other municipality.

Factor 1

- The city of Sumas has stormwater discharges to the Sumas River, a 303(d) listed sensitive water body (impaired for DO and fecal coliform). It is likely that stormwater runoff from the city of Sumas and its unincorporated UGAs has impacted these impaired water bodies by contributing significant levels of oxygen-demanding compounds.

Factor 3

- The city of Sumas has a population of 1,319 with a density of 947 people per square mile and has experienced an increase in population growth of 34.9% in the last ten years. Because population data are not available for the unincorporated UGAs surrounding Sumas, population estimates are conservative. Nonetheless, residential growth in the city of Sumas has occurred at twice the rate of the state population growth during the same time period.

K. Skagit County

City of La Conner and Unincorporated County UGAs adjacent to La Conner

The city of La Conner borders Puget Sound directly across from the north end of Whidbey Island. The Swinomish Channel bisects La Conner from unincorporated county UGAs of Swinomish and prevents the two adjacent areas from sharing interconnected stormwater conveyances.

Factor 1

- La Conner discharges stormwater directly to the Swinomish Channel which is on the 303(d) list for water quality impairments that include the industrial pollutants Benzo(a)anthracene and Chrysene.
- The nearshore waters to the west and the Swinomish Channel receive stormwater runoff from La Conner and the unincorporated county UGAs and are designated by NOAA as critical habitat for Chinook salmon.

Factor 3

- La Conner has a population of 870 with a density of 2,004 people per square mile and has experienced an increase in population growth of 14.3% in the last ten years.

L. Island County

City of Coupeville

The city of Coupeville is located on northern Whidbey Island along the southern shores of Penn Cove and is a stand alone UGA without stormwater conveyances connected to any other municipality.

Factors 1 and 2

- The city of Coupeville discharges stormwater directly to Penn Cove, a water quality-impaired water body on the 303(d) list (factor 1) for DO. Oxygen-demanding organic compounds (which contribute to low DO issues) are known constituents of concern frequently found in stormwater runoff and based on this, it is likely that stormwater discharge from the city of Coupeville contributes to this impairment.

- Stormwater from the city of Coupeville discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at Long Point, Madrona, and Coupeville Beach (which is permanently closed for human health concerns).
- The Coupeville shoreline habitat has received NOAA designation as critical habitat for Chinook populations.
- Coastal waters off Coupeville are regularly used for swimming and fishing by the public.

Factor 3

- Coupeville has a population of 1,890 with a density of 1,780 people per square mile and has experienced an increase in population growth of 9.7% in the last ten years.

City of Langley and Unincorporated County UGAs adjacent to Langley

The city of Langley is located on the southeastern shores of Whidbey Island. It has stormwater conveyances physically interconnected with and adjacent to unincorporated county UGAs of Langley.

Factor 1

- Stormwater from Langley discharges to nearshore areas adjacent to commercial and recreational shellfish beds, including those located at Sunrise Beach (permanently closed for human health concerns), South Sandy Beach, and Langley Shellfish Area.
- The Langley shoreline habitat has received NOAA designation as critical habitat for Chinook populations.
- Coastal waters off Langley are regularly used for swimming and fishing by the public.

Factor 3

- The city has a population of 1,115 with a density of 1,143 people per square mile and has experienced an increase in population growth of 16.3% in the last ten years, which is greater than the average Washington state population growth rate during the same time period.

M. Thurston County

City of Rainier and Unincorporated County UGAs adjacent to Rainier

The city of Rainier is located to the southwest of Yelm in Thurston County. It is surrounded by and adjacent to unincorporated county UGAs that share interconnected stormwater conveyance systems.

Factors 1 and 2

- Rainier stormwater discharges to the Deschutes River, which is on the 303(d) list for fecal coliform and temperature downstream of the city. Stormwater runoff from this area may contribute to these impairments.

Factor 3

- Rainier has a population of 1,805 with a density of 984 people per square mile and has experienced an increase in population growth of 21% in the last ten years, which is greater than the average Washington state population growth rate during the same time period